

IN THE CLAIMS

A listing of all claims and their current status in accordance with 37 C.F.R. § 1.121(c) is provided below.

1. (currently amended) An oximeter sensor comprising:
a light emitter for directing light at a patient;
a light detector mounted to receive light from ~~said~~ the patient; and
a memory storing a first formula for determining oxygen saturation, a second formula for determining oxygen saturation, a first set of coefficients corresponding to a wavelength of said the light emitter for use in the a first formula for determining oxygen saturation, and a second set of coefficients corresponding to said the wavelength of said the light emitter for use in a the second, different formula for determining oxygen saturation, wherein the first formula differs from the second formula.

2. (currently amended) The oximeter sensor of claim 1 wherein ~~said~~ the coefficients are dependent on a mean wavelength of ~~said~~ the light emitter.

3. (currently amended) The oximeter sensor of claim 1 wherein ~~said~~ the memory further stores a value indicating a signal breakpoint between ~~said~~ the first and second formulas.

4. (currently amended) The oximeter sensor of claim 1 wherein at least one of the ~~said~~ different formulas is a nonlinear formula.

5. (currently amended) The oximeter sensor of claim 1 wherein ~~said~~ the different formulas are linear formulas.

6. (currently amended) An oximeter sensor system comprising:
a light emitter for directing light at a patient;
a light detector mounted to receive light from ~~said~~ the patient; and
a memory, mounted in a sensor or between ~~said~~ the sensor and an oximeter monitor, ~~said~~ the memory storing an indication of a breakpoint, first and second sets of coefficients corresponding to a same wavelength of the light emitter, and first and second formulas for determining oxygen saturation, ~~said~~ the oximeter monitor selecting between the first and second sets of coefficients and the first and second formulas for determining oxygen saturation based at least in part on ~~said~~ the breakpoint.

7. (currently amended) The oximeter sensor of claim 6 wherein ~~said~~ the coefficients are dependent on a mean wavelength of ~~said~~ the light emitter.

8. (canceled)

9. (currently amended) The oximeter sensor of claim 6 wherein at least one of ~~said~~ the formulas is a nonlinear formula.

10. (currently amended) The oximeter sensor of claim 6 wherein the said formulas are linear formulas.

11. (currently amended) An oximeter sensor comprising:
a light emitter for directing light at a patient;
a light detector mounted to receive light from ~~said~~ the patient; and
a memory storing at least two different algorithms, and a plurality of alternate values of oxygen saturation or ratio-of-ratio values used in the at least two different algorithms to determine oxygen saturation, ~~said~~ the plurality of values corresponding to the same mean wavelength of ~~said~~ the same light emitter.

12. (currently amended) The sensor of claim 11 wherein ~~said~~ the values are correspond to different coefficients or formulas used for different ranges of oxygen saturation.

13. (new) An pulse oximeter system comprising:
a pulse oximeter sensor comprising:
a light emitter for directing light at a patient;
a light detector mounted to receive light from the patient; and
a memory storing a first formula for determining oxygen saturation, a second formula for determining oxygen saturation, a first set of coefficients corresponding to a wavelength of the light emitter for use in the first formula, and a second set of

coefficients corresponding to the wavelength of the light emitter for use in aid second formula, wherein the first formula differs from the second formula; and

a pulse oximeter monitor configured to receive communications from the pulse oximeter sensor and configured to perform calculations using one or both of the first and second formulas to estimate oxygen saturation in blood of the patient.

14. (new) The oximeter sensor of claim 13 wherein the coefficients are dependent on a mean wavelength of the light emitter.

15. (new) The oximeter sensor of claim 13 wherein the memory further stores a value indicating a signal breakpoint between the first and second formulas.

16. (new) The oximeter sensor of claim 13 wherein at least one of the different formulas is a nonlinear formula.

17. (new) The oximeter sensor of claim 1 wherein the different formulas are linear formulas.